a die [that is] thermally [connected] coupled to the heat sink. [slug and

an optically transparent material, encapsulating the die, having a hardness less than Shore 10A.]

6. (Once amended) [A package] An assembly, as defined in claim [1]5, further comprising[:] an optically transparent material, encapsulating the die, having a hardness less than Shore 10A.

[a die that is thermally connected to the slug; and

an optically transparent encapsulant that has a hardness of at least Shore 50D.]

7. (Once amended) [A die] An assembly, as defined in claim 5, further comprising a submount of a second thermally conductive material connected between the die and the [slug] heat sink.

a3

8. (Once amended) [A die] An assembly, as defined in claim 7, wherein the second thermally conductive material [of the slug and the submount are] is selected from [a] the group [that includes] consisting of pure materials, compounds, and composites of silver, copper, diamond, silicon, aluminum, tungsten, molybdenum, and [beryllia] beryllium.

9. (Once amended) [A die] An assembly, as defined in claim 5, wherein the first thermally conductive material [of the slug and the submount are] is selected from [a] the group [that includes] consisting of pure materials, compounds, and composites of silver, copper, diamond, silicon, aluminum, tungsten, molybdenum, and [beryllia] beryllium.

10. (Once amended) [A die] An assembly, as defined in claim 5, further comprising a reflector cup, positioned near the [slug] heat sink, having a reflective surface.

Please delete claim 11.

11

~~12~~. (Once amended) [A die] An assembly, as defined in claim [11] 10, wherein the [reflector cup] reflective surface is selected from [a] the group [that includes] consisting of

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a4

silver, aluminum, gold, silver with a dielectric coating, gold with a dielectric coating, and aluminum with a dielectric coating.

~~13~~ 12. (Once amended) [A die] An assembly, as defined in claim [12] 10, wherein the reflective surface [is selected from a group that includes silver, aluminum, gold, silver with a dielectric coating, gold with a dielectric coating, and aluminum with a dielectric coating] includes a dielectric stack.

~~14~~ 13. (Once amended) [A die] An assembly, as defined in claim [12] 10, wherein the reflective surface includes at least one totally internal reflective surface formed by refractive index step changes > 0.3.

~~15~~ 14. (Once amended) [A package] An assembly, as defined in claim 1, further comprising a reflector cup, positioned near the [slug] heat sink, having a reflective surface.

Please delete claim 16.

~~17~~ 15. (Once amended) [A package] An assembly, as defined in claim [16] ~~15~~ 14, wherein the [reflector cup] reflective surface is selected from [a] the group [that includes] consisting of silver, aluminum, gold, silver with a dielectric coating, gold with a dielectric coating, and aluminum with a dielectric coating.

~~18~~ 16. (Once amended) [A package] An assembly, as defined in claim [17] ~~15~~ 14, wherein the reflective surface [is selected from a group that includes silver, aluminum, gold, silver with a dielectric coating, gold with a dielectric coating, and aluminum with a dielectric coating] includes a dielectric stack.

~~19~~ 17. (Once amended) [A package] An assembly, as defined in claim [17] ~~15~~ 14, wherein the reflective surface includes at least one totally internal reflective surface formed by refractive index step changes > 0.3.

Add claims 20-30 as follows:

~~20~~ 18. (New) A light emitting die assembly comprising:

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metal leads;

an insulating body attached to the metal leads, the insulating body having a cavity; and

a heat sink of a first thermally conductive material, the heat sink separate from the metal leads, connected to the insulating body, and positioned relative to the cavity for being thermally coupled to a die.

21. (New) The assembly of claim 20, further including a submount of a second thermally conductive material, connected to the heat sink.

22. (New) The assembly of claim 20, wherein the first and second thermally conductive materials are selected from the group consisting of pure materials, compounds, and composites of silver, copper, diamond, silicon, aluminum, tungsten, molybdenum, and beryllium.

23. (New) The assembly of claim 20, further comprising a reflector cup positioned near the heat sink, having a reflective surface.

24. (New) The assembly of claim 23, wherein the reflective surface is selected from the group consisting of silver, aluminum, gold, silver with a dielectric coating, gold with a dielectric coating, and aluminum with a dielectric coating.

25. (New) The assembly of claim 23, wherein the reflective surface includes a dielectric stack.

26. (New) The assembly of claim 23, wherein the reflective surface includes at least one totally internal reflective surface formed by refractive index step changes ≥ 0.3.

27. (New) An assembly, as defined in claim 10, wherein the reflector cup includes a material selected from the group consisting of silver, copper, aluminum, molybdenum, diamond, silicon, alumina, aluminum nitride, aluminum oxide, and composites of silver, copper, aluminum, molybdenum, diamond, silicon, alumina, aluminum nitride, and aluminum oxide.

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28. (New) An assembly, as defined in claim 10, wherein the reflector cup includes a thermally insulating material.

29. (New) An assembly, as defined in claim 17, wherein the reflector cup includes a material selected from the group consisting of silver, copper, aluminum, molybdenum, diamond, silicon, alumina, aluminum nitride, aluminum oxide, and composites of silver, copper, aluminum, molybdenum, diamond, silicon, alumina, aluminum nitride, and aluminum oxide.

30. (New) An assembly, as defined in claim 17, wherein the reflector cup includes a thermally insulating material.

REMARKS

Claims 1-10, 12-15, and 17-30 are pending after the amendment. Claims 1-19 were pending in the application. Claims 1-10, 12-15, and 17-19 have been amended. Claims 11 and 16 have been deleted. Claims 20-30 have been added.

Support for the amendments to the specification

The Applicants have made the following amendments to the specification:

(1) On page 4, line 25, the specification has been amended to include beryllia among the thermally conductive materials from which the slug and submount may be made. Since beryllia was listed in, for example, original claim 3, the addition does not constitute new matter.

(2) On page 4, line 26, and page 5, line 2, the specification has been amended to include the group of thermally conductive materials from which the slug and submount may be made as listed in original claim 8.

(3) On page 5, line 16, the specification has been amended to state that "the optional reflector cup 14 may be made of thermally conductive materials that have been plated for reflectivity" in order to correct an error in the originally filed specification.

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